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ABSTRACT

A cooperative program conducted by the Logan (Utah) City School District and IBM Corporation used computers in the classroom to develop new teaching and career guidance approaches while enhancing students' process writing skills. The program included units designed for student and teacher awareness of the impacts of technology, the need for a new work order, and possible solutions to regaining national industrial competitive leadership. Students improved their writing skills while developing an understanding of productivity, entrepreneurship, and the need for self-discipline in one's own academic upgrading. Project activities included: visiting other schools and ordering computers; staff development activities that encouraged hands-on practice; and the development of technology-based classroom activities having to do with newspaper technology, technologically advanced toys, recent scientific technological advancements, and technology and the environment. Evaluation of the project showed that it had been successful in introducing students to technology education, computers, and the writing process. The study concluded that such programs should be put in place for most students throughout the country. (The guide includes the six activities developed during the project: models of technology, TechniToy Program with its own brochure of sample letters, a newspaper unit, writing with a technological twist, a technology broadcast unit, and professional staff credit.) (KC)

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ED 366 800

Competency Gauged Writing Activities for Middle Grade Students Prompted by Needs of Technology Education

A Joint Project

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AMERICAN VOCATIONAL ASSOCIATION
NASHVILLE, TENNESSEE

DECEMBER 5, 1993

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PREFACE

Technology is fast becoming an integral part of the school curriculum for young people, as well as a lively conversation topic for the country store, cracker barrel generation of older people. All ages are looking toward a rebirth of technology to recharge the country's dwindling competitiveness and to reenergize the working muscle of those who staff our industries and businesses of America. Fortune Magazine's score card, a rating of world production in thirteen key industries, reflects the dwindling competitiveness of America. Ten years ago America would have led the world in the majority of the thirteen industries; today America leads in only two industries--food sales and scientific and photographic equipment (2). The Harvard Business Review, Mar-April 1991 states, "In a demanding competitive environment, U.S. companies cannot prosper unless the schools graduate a continuing stream of well-educated, self-disciplined, motivated young people" (10). This statement reflects on past graduates presently employed in U.S. businesses who create our present problem with competitiveness, but it also provides a direction to be considered "important" for the many students presently in public schools K-12 who will be graduating and entering employment in this country. To bring America back as promoters of new ideas in an industry of competitive setting designed around core subjects and concepts of technology, students in public schools need to start early with exposure to multi-discipline curriculum programs. This approach is needed to expedite the process of learning and critical thinking directed at the multi-faceted

process of regaining the leadership image in the world market and reformed levels of education.

INTRODUCTION

Logan City Schools take pride in being one of the first to introduce a multi-discipline curriculum that brings together the technology education and process writing activities. These two non-traditional approaches to teaching help students in addressing future job markets, their own academic well-being, and their needed participation in the rebuilding of the businesses and industries of this country. It is important for students to develop a positive attitude about themselves, believing they can become better and greater in critical thinking, idea generation, and fulfillment of the idea. This can begin with achieving competence with technology-centered process writing skills that reflect cognitive development, abstract thinking, educated reasoning, and greater motivation within a framework of emerging technologies applied to a number of core curriculum subject areas.

The professional staff of administrators and teachers accepted the challenge of this project to bring both the teachers and students "on task" with the new terms of technology combined with a sequenced program of process writing. The central theme of technology developed new visions of knowledge that spurred the thinking of students in the Language Arts process writing activities. Students developed

technological awareness as a result of the multi-curriculum writing project in grades six through eight at the Mount Logan Middle School.

Need

The processes employed by American manufacturing and marketing throughout the world has been challenged in the past century. We find our national productivity faltering and our standard of living in America declining as we move into a time period that is known as the third industrial revolution. The computer, high speed communications, and the competitive nature of other countries is affecting each individual in school, as well as the work force of the United States. The third industrial revolution will require a new framework of thinking with a new pattern of "work organization" and new curriculum strands that will effectively change and produce individuals who can think, plan, and emerge as technologically literate people. Needed to assist in this process are new school-based writing programs that will generate a student-focused instructional system motivating students to participate in decision making roles in a cluster of technology-centered application. These new programs must prepare students for the "new work organization." The outcome of this technology-centered writing program will be students who are better able to demonstrate competence in critical thinking with technology-centered writing skills, as well as to verbalize their roles in the new work organization. This project is needed to help students focus on planning for the future and their employability skills as they

look to graduation from the Logan City School system, as well as post-secondary study or the world of technical employment.

Definition of Terms

Technology

"Technology is the means by which people provide objects that are necessary for human survival and comfort. Science and technology often go together, but not all technology is based on science, and science is not necessary to all technology. While science tries to explain how and why things happen, technology is based on making things happen.

Technology brings about control over nature and benefits people by developing tools, machines, materials and processes that:

- make labor easier and safer.
- reduce the amount of work needed to produce goods and services.
- increase the amount of goods and services produced.
- raise living standards." (1)

Technology Education

An applied discipline designed to promote technological literacy which provides knowledge and understanding of the impacts of technology including its organizations, techniques, tools and skills to solve practical problems and extend human capabilities in areas such as construction, manufacturing, communication, transportation, power and energy. (4)

Multi-Discipline Curriculum

Multi-discipline curriculum is a course of study connecting traditionally separated content areas of study. Concepts traditionally taught in science, art, business and social studies have become subjects for process writing assignments related to the theme of technology.

Process Writing

Process writing is the concept of teaching students to write by using a step-by-step approach which values the process of student writing as much as the final product they produce. The idea of writing a paper for a "real" purpose and for an audience other than the teacher makes this process meaningful.

The writing process generally has six basic parts. First, students determine the audience for their piece of writing and their reason for writing. They then begin prewriting activities which include brainstorming, listing and researching. Next they draft their compositions, putting the whole idea and specific details for support down on paper. Then they begin the revision process, which has two separate parts. Initially, students work at viewing the whole piece, paying particular attention to tone, audience awareness and purpose of the paper. From the information they get, students revise their first draft until the ideas are clear and meaningful. For the second part of the revision process, students work at surface level revisions such as effective sentence structure, active verbs and pronoun agreement. The final step is readying the piece for publication. This process culminates in a completed assignment.

Goals of the Project

Goals of this project were based on objectives designed to affect a change in teacher philosophy surrounding the conditions of work in business and industry, as well as the objective to subsidize the methodology of presenting and teaching concepts of technology to students. The change was designed to have a significant impact on students' vision of their total educational program and readiness for future employment in a technological society. The goals of this project were to:

1. Expand the philosophy of computer-based technology programs to develop new teaching and career guidance approaches with technology education and student process writing skills.

2. Develop new teaching sequences for technology-centered writing labs focusing on a competency-based curriculum in the classroom for students in sixth and seventh grade, with an emphasis on eighth-grade students' writing activities.

3. Develop new directions in the student writing program incorporating concepts of technology that interlace with academic content directed at improving the student's technological literacy.

4. Establish partnership linkages with management of businesses, industries, and education in developing a scope and sequence of academic study and guidance for students that would give direction for study and future preparation.

5. Use computer technology to enhance a student's writing and communication skills engaging pre-writing activities, idea formulation, discussions, leadership development, technology awareness, and group process interaction.

Scope and Description

IBM computers were used in a computer writing lab, providing teachers and students at the Mount Logan Middle School an opportunity to learn about technology through creative writing experiences. The new writing program included units designed for student/teacher awareness citing the impacts of technology on world competition, the need for a new work order, and possible solutions to regaining national industrial competitive leadership. Students used the writing skills to develop an understanding of productivity, entrepreneurship, and the need for self-discipline in one's own academic upgrading. A new direction for a writing lab experience was

planned that would have an impact on students' educational plans and their understanding of the need for study and quality in school and work, leading to better employment.

The maximum application of the assignment in this project targeted the students and teachers in the eighth grade classes with a gradual infusion of student writing activities in the sixth and seventh grades of the middle school.

Teachers were guided through inservice activities centered around the document "America's Choice--High Skills or Low Wages" by the National Center on Education and Economy-1990, which served as a spring board in projecting conditions affecting United States business and industry. (5) Teacher inservice materials were provided which included outlines of sequences needed to teach "process writing" and "models of technology."

Anticipated Outcomes

The expected outcomes of this project were to improve student attitudes towards study and technology through a writing experience. The writing activities designed around technological literacy and writing competency were geared to help start the students toward an improved efficiency in school, leading to carryover in readiness for future study and employment.

The interlacing of academic activities in the writing labs and theme-centered concepts of technology affecting youth were designed to have an immediate impact on students' activity and teachers' presentations in grades six through eight in Mount

Logan Middle School. The technology-centered writing program was designed to serve as a model for other schools, teacher education programs, state education specialists, representatives of business and industry, and for the academic and applied technology education leaders of Utah.

Equipment

One classroom was dedicated to the concept of a writing lab. The lab contained five complete islands of six computers, each with one printer programmed to function on command from each computer station. Two half islands of three computers were used in order to accommodate a N=36 lab arrangement. A coordinator station was designed to facilitate disc management for students and computer server control. The following IBM equipment was included:

36 IBM Computers PS/2, Model 30-286

36 IBM Monitors PS/2, Model 8512

6 Printers PS/2, Model 2380

1 IBM PS/2 Server, Model 65-SX

1 Arcnet Topology

1 Novell: 2.2 50 station user network

PLANNING AND ORGANIZATION OF THE PROJECT

Pre-Planning Activities

Grass roots planning was undertaken, seeking input from the professional teaching staff and administration for the purpose of identifying the immediate philosophical needs of teachers and practicality of a technology-centered writing lab for the Mount Logan Middle School. Two concepts were addressed:

1. How best to address a philosophy of technology in preparing Language Arts teachers about subjects that could be matched with an IBM writing lab experience for students in grades six through eight.

2. How best to assist teachers and students in developing new writing skills through process writing experiences targeting career-related technology-centered activities that would impact students' thinking, motivations, and attitude towards school and industry.

Pre-planning activities provided information to teachers citing new technology curriculum materials from the elementary schools of the Logan City Schools, as well as those already in place at Logan Senior High School Technology Center, grades 9-12 (Appendix A). Models of the programs and the supporting philosophy of technological literacy were discussed with all English teachers. A set of sequenced activities proved to be very successful in the project, guiding both teacher and student forward in meeting the goals of the project. They are as follows:

Sequence of Activities

1. Pre-planning Activities: Several decisions were made in initializing the project:
   a. Director obtained commitment from eighth-grade teachers to take the lead to complete the grant requirements.
   b. Teachers visited other school lab sites for set-up ideas, furniture selection and room design.
   c. Teachers designed the layout and ordered materials.
   d. Director ordered 36 IBM computers, network and server.
   e. A lab assistant was hired who had knowledge of computers and a commitment to assist with the concept of technology and writing.
2. Staff Development Activities: The following steps were presented to teachers helping them understand process-centered writing: For students to use technology and work through the process of writing, teachers were expected to know the ideas as well as work on computers themselves. Teachers shifted their thinking from the traditional "stand and deliver" method of teaching to a student "hands on" practice method. To introduce teachers to the computer lab and to process writing, the district technology specialist directed a day-long workshop. The inservice workshop modeled the "hands on" method of teaching.

Teachers used the computer lab as students would. Teachers wrote and published a letter centered around targeting technology to a specific audience. Activities for the workshop were:

a. Pre-writing activities introduced teachers to basic word processing skills on the computer.

b. Drafting the letters on the computer acquainted the teachers with more computer capabilities and the mechanics of printing a document.

c. Group reviewing, critiquing, and revising of the letters on the computers demonstrated the power of the computer in making textual changes.

d. Publishing a formatted formal letter revealed to the teachers the rationale for using a process approach to the teaching of writing.

e. Discussion and practice on the designing process, assignments, and integrating multi-discipline technology topics concluded the workshop.

3. Technology-Based Curriculum Activities: The following subject areas of study were developed for students in the eighth grade: Newspaper Technology, Technologically Advanced Toys, Recent Scientific Technological Advancements, and Technology and the Environment. These served to implement the concept of technology education through a multi-discipline, process writing approach. Sixth and seventh grade

students wrote technology-based writing assignments with their limited experiences in the computer lab.

a. For the Newspaper Technology Unit, students wrote a feature article on a new teacher at MLMS. Activities included students who:

- Listened to guest speakers on how newspapers are produced and the type of technology involved in running radio stations.
- Researched topics through films, videos and library resources.
- Used computers in all phases of the entire writing process.
- Published selected articles in the school newspaper.

b. For the Technologically Advanced Toy unit, middle school students designed a high-tech toy of the future and wrote a promotional letter asking a hypothetical company to market the toy. Among many activities, students:

- Researched the toy market by reading, studying surveys and visiting stores.
- Demonstrated examples of current high-tech toys.

- Received a letter from TechniToy of Utah (a hypothetical company) asking for ideas of innovative toys using technological concepts.
- Drew and presented a mockup of their invented toy.
- Used computers to write their proposal to the company.
- Received a personal reply from TechniToy of Utah (written by Logan High School students) commenting on the marketability of the toy.
- Published selected letters from both MLMS students and replies from LHS students. (Appendix B)

c. For the Recent Scientific Technology Advancements unit, student teams did the necessary research and wrote a TV broadcast script for a three-minute special report. To complete this assignment, students:

- Reviewed scripts and TV presentations.
- Researched materials in the library, in the community and at home.
- Collaborated on drafting the script.
- Presented "live" to the class, the prepared script.
- Videotaped selected specials to appear on MLMS TV network.. (Appendix E)

d. For the Technology and the Environment unit, students researched the effects of technology on the environment and wrote a newspaper article focusing on an environmental issue involving technology. To complete the assignment, students:

- Discussed Environmental issues with the high school LEAF Club.
- Researched in library and community.
- Used computer for drafting and revising articles.
- Created a newspaper layout focusing on technology and the environment to be published on Earth Day, April 1992.
- Published selected articles for the newspaper.

(Appendix C)

e. Activities for the sixth and seventh grade technology unit centered on writing assignments focused on such topics related to transportation technology applications. (Appendix D)

COOPERATIVE APPROACHES

Number Served/Time Line

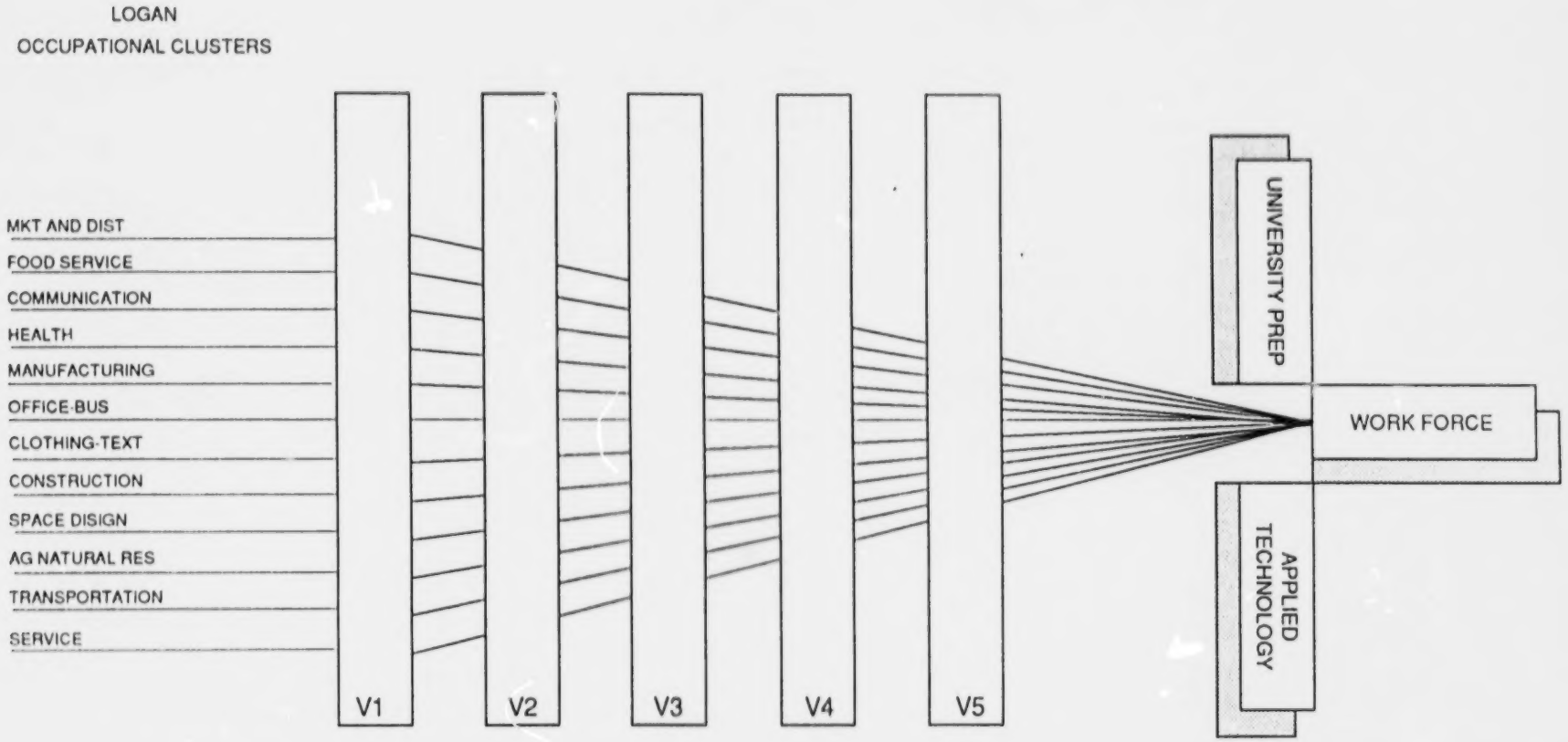
The number of students participating in the program was the total enrollment at MLMS, 1278 students. The writing-technology project targeted all the students in

the school grades six through eight. Emphasis for the project was given to the eighth grade with a population of 387 students. There were 24 teachers who participated in the inservice programs including support, paraprofessionals and coordinators. The frequency of lab use was limited due to the large number of participating students. The program began in October 1991 with eighth-grade students using the lab four to five times at a duration of five days per assignment. Other grades, sixth and seventh, used the lab two or three times. The lab was in use 100% of the time occupied by three grade levels with a total of 5584 documents developed by students supporting a new blending of two curriculum areas: technology and process writing.

Joint Effort of IBM and the Logan City Schools

The joint effort of the representatives of IBM Corporation and a dedicated staff from the Logan City Schools reflects the willingness and continued need of representatives of businesses and schools to work together in solving pertinent social-educational problems. Both business and industry have an interest in education in meeting the demands of the external competitive environment. This project exemplified a successful effort where business and education worked together as a team in preparing students to become thinkers and doers in handling tomorrow's challenges of technologies and education.

LOGAN CITY SCHOOLS
TECHNOLOGY EDUCATION: A DESIGN FOR PROGRESS



V.1 CAREER SELECTION AND PREPARATION FOR WORK COMPONENT, STUDENTS' INTERESTS, APTITUDE AND SPECIAL ABILITIES ARE UNDERSTOOD

V..2 FREE ENTERPRISE SYSTEM COMPONENT; REAL SUCCESS IF THE RIGHT SELECTIONS ARE MADE

V.3 TECHNOLOGICAL TRENDS, APPLIED TECHNOLOGY EDUCATION COMPONENT; BETTER PLANS TODAY CREATING OPPORTUNITIES FOR TOMORROW

V.4 HUMAN RESOURCES MANAGEMENT FOR LIVING AND WORKING COMPONENT; DEVELOPMENT AND MANAGEMENT OF RESOURCES FOR HOME, WORK AND THE GOOD LIFE

V.5 GUIDANCE AND COUNSELING COMPONENT; COUNSELORS PROVIDE INDIVIDUAL AS WELL AS GROUP S.E.O.P. PLANNING

IBM-ETI-Logan Schools

The need for cooperating in providing necessary facilities is demonstrated with the creation of the MLMS writing lab. Shared participation was essential in organizing and financing this project. The efforts of IBM Corporation, the use of the Educational Technology Initiative (ETI) funds from the state legislature and the financial commitment of the Logan City Schools resulted in a model program with educator commitment using state-of-the-art computer equipment dedicated to improving teachers' skills and students' learning.

EVALUATION

The goals of the project serve as a guide in addressing the success of this project. The project evaluation concluded:

1. New teaching and career guidance activities can be planned by teachers of English programs combining the concept of technology education resulting in well-developed student-centered lesson plans that generate highly motivated students.

2. Students will respond to new writing/thinking and technology processes motivating them to be more productive and thorough with assignments through the use of computer-supported publications.

3. Students, as well as teachers, will utilize new ideas of interlacing academic requirements of Language Arts with technologies. Increased student participation, designed to improve technological literacy for both teacher and student through process writing, will exceed the anticipated expectations of the traditional writing program.

4. Businesses and industries will establish linkages and partnerships with schools to address technology-related subject areas that will impact students' direction of study and future preparation for employment.

5. Teachers and students find computer-supported process writing activities cause students to excel beyond expectations and with fewer inhibitions when assigned technology related areas of study that appeal to the students' experience level of understanding.

FINDINGS

The IBM writing project was received in an open and professional manner by the administration, staff, students and parents of the Mount Logan Middle School. Significant findings were made based on observations and the evaluations of the program by the teachers, principal, technology specialist and director. They are as follows:

1. The principal of the Mount Logan Middle School was most supportive of the project sparking enthusiasm with the staff and students at the school as he assisted with each detail of the project. His interest and commitment was demonstrated in a

positive, harmonious and complementary manner with professional staff and students of the school.

2. The concept of a technology-centered writing lab was initially a challenge due to the lack of understanding of the big "T" word, meaning Technology. Inservice activities and current articles citing the effect of technology assisted in bringing the staff up to accepting the problem associated nationally as well as locally with a new definition of technology.

3. The district technology specialist was instrumental in combining the concepts of technology and process writing activities through inservice activities with teachers of grades six through eight.

4. The writing activities that generated the most student participation with originality of thought and motivation were those developed around the concept of technology applied to the experience levels and interest of each student.

5. Dedicated teachers open to change supported by appropriate findings can develop cross curriculum computer technology-centered programs that successfully motivate teachers and students into addressing current social and industrial concerns.

6. Students who otherwise would not participate or would be reluctant in completing their assignment gave full effort in writing technology-centered papers, far beyond that which was reflected in prior assignments.

7. The success of students enrolled in resource and ESL programs in grades six through eight who participated in the writing lab exceeded the staff's expectations.

Additional networked writing stations emerged from the original lab that could be used daily by resource students.

CONCLUSION

1. Writing and technology education should become an integral part of the middle school curriculum assignments focusing on real-life topics and middle-school.-age thinking levels--baseballs with sensors, space ship travels, and imaginary futuristic activities.

2. The technology writing project is a motivational tool that appeals to students as they relate to the "openness of technology" based on their experiences, background, and critical thinking levels.

3. The central office administration and principal must assume leadership responsibilities in working with representatives of industry in developing new multi-discipline areas of study that can be used to support the needs of industry, society and education.

4. State agencies, businesses, legislators and education need to continue the financing of technology initiatives necessary to put in place computer labs and upgraded teaching stations designed to expedite the learning and writing process of children.

5. Students in resource and ESL programs should have access to computer equipment as well as an increased acquaintance with technology, thereby awakening their latent interests and abilities.

6. Further cross curriculum activities should be developed in grades K-12 as teachers move to make students more technologically literate through technology process writing activities.

7. Teachers, administrators and representatives of business and industry share the common goals to better educate young people as tomorrow's workers who must research and develop the new technologies that provide a better way of life.

RECOMMENDATIONS

The following recommendations are suggested based on the positive findings generated with this program:

1. Further use of technology and process writing should continue with students at the Mount Logan Middle School in an attempt to further impact students' attention level, outlook on schooling, employment, and contribution of living.

2. Further application of student-centered technology writing programs should be considered in both elementary and secondary schools as a motivational knowledge-generating concept in teaching.

3. The concept of process writing incorporating technology sequences should be studied and documented at each grade level for the purpose of identifying the most common types of technology on the minds of students.

4. Businesses and industries are encouraged to continue the linking with the schools to provide support for equipment, software, and consultation when both parties pursue a common goal of interest.

5. The TechniToy company, an idea developed in one of the process writing assignments, should be thoroughly studied and analyzed; the concept has significant potential in grades six through twelve writing activities, as well as entrepreneurial and economic education programs.

6. Teacher education programs should prepare future teachers who are technologically literate with the knowledge and skills to teach concepts of technology-centered process writing activities in grades K-12.

7. Public schools should expand the process writing concept to allow students in Language Arts classes easier access to computers, recommending one writing lab per grade level for Language Arts programs with 450 students per grade level.

DISSEMINATION

The results of this project will be made available to superintendents of each school district in Utah. In an effort to share the information from this project, presentations addressing the concept of process writing integrated with technology education will be given at professional conventions. In addition, articles for publication will be submitted to professional teacher education and applied technology education journals. Technology Curriculum Centers in Utah, Oklahoma, Montana, Missouri, and Texas A&M will receive copies of the project for information purposes.

Ohio State University, The Center for Research of Applied Technology will receive permission to place the report on their national file listing of successful programs.

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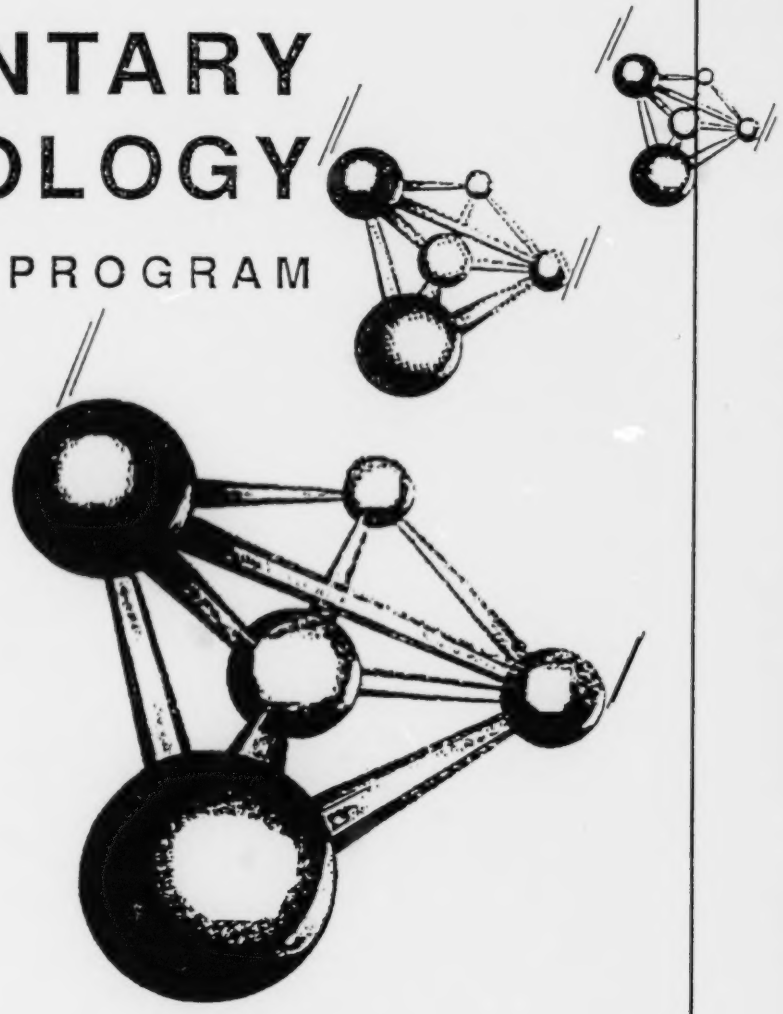
APPENDIX A

LOGAN CITY SCHOOLS

ELEMENTARY TECHNOLOGY

EDUCATION PROGRAM



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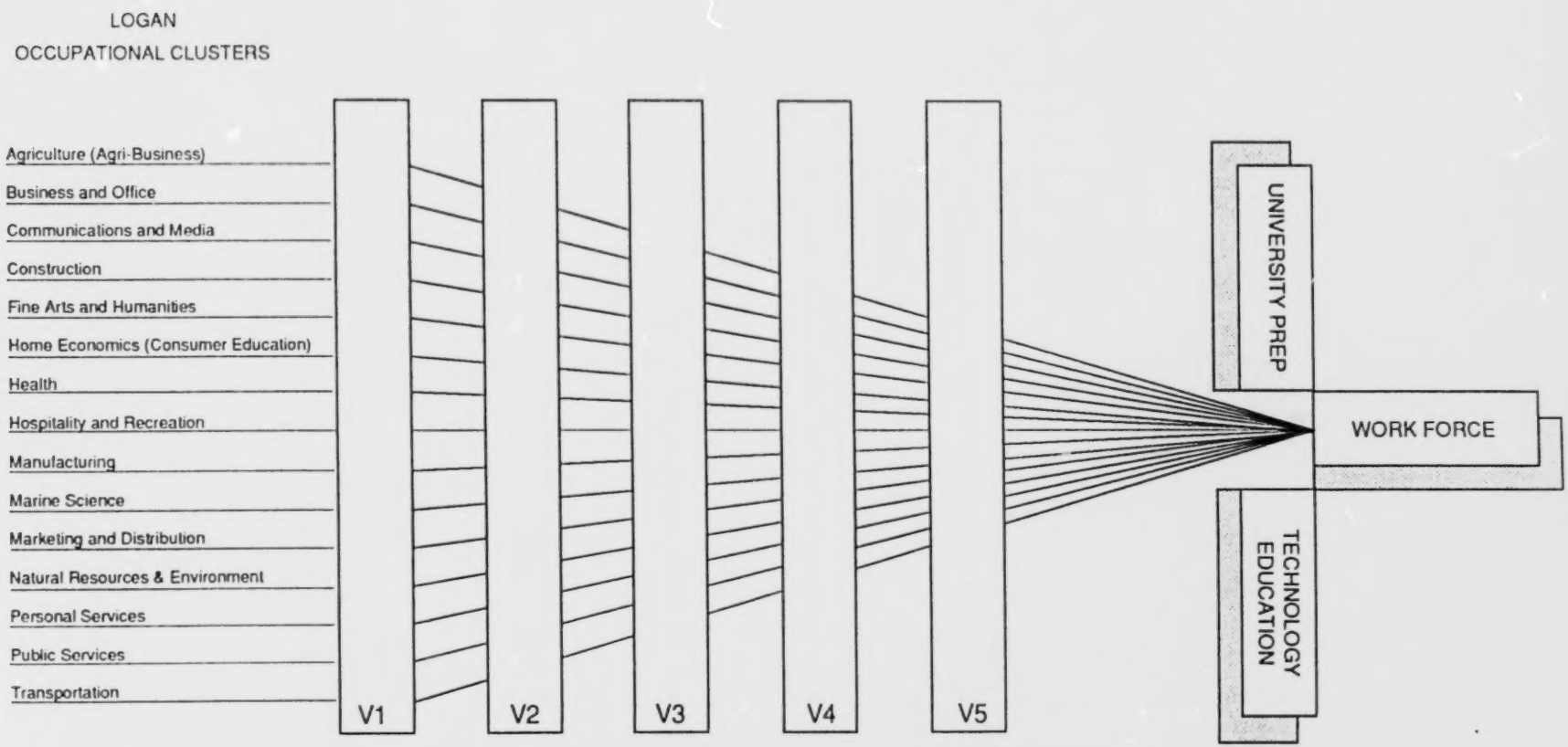
LOGAN CITY SCHOOLS - ELEMENTARY EDUCATION
TECHNOLOGY EDUCATION: A DESIGN FOR PROGRESS



V.1 CAREER SELECTION AND PREPARATION FOR WORK COMPONENTS; STUDENTS' INTERESTS, APTITUDE AND SPECIAL ABILITIES ARE UNDERSTOOD

V..2 FREE ENTERPRISE SYSTEM APPLICATIONS COMPONENT; REAL SUCCESS IF THE RIGHT SELECTIONS ARE MADE

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V.5 GUIDANCE AND COUNSELING COMPONENT; COUNSELORS PROVIDE INDIVIDUAL AS WELL AS GROUP S.E.P. PLANNING

FIFTEEN OCCUPATIONAL CLUSTERS

The U.S. Office of Education has grouped all jobs into 15 different groups called *clusters*. Below are the 15 clusters and *some* careers in each cluster.

AGRICULTURE (AGRI-BUSINESS)

Farmer
Wildlife & Conservation Technician
Agronomist
Horse Breeder
Agricultural Engineer
Entomologist

PUBLIC SERVICE

Teacher
Lawyer
Armed Forces
Fire Fighter
F.B.I. Agent
Census Clerk

HOSPITALITY & RECREATION

Stunt Man
Recreation Specialist
Hotel Manager
Ski Instructor
Professional Athlete
Chef

MARINE SCIENCE

Fish Culturist
Oceanographer
Aquanaut
Hydrologist
Marine Biologist
Research Technician

TRANSPORTATION

Airplane Pilot
Cab Driver
Traffic Controller
Merchant Marine
Truck Driver
Steward/Stewardess

BUSINESS & OFFICE

Accountant
Computer Programmer
Bank Teller
Receptionist
Bookkeeper
Insurance Underwriter

NATURAL RESOURCES & ENVIRONMENT

Urban Planner
Forest Ranger
Geodesist
Sociologist
Soil Conservationist
Environmental Engineer

MANUFACTURING

Tool Designer
Millwright
Electrical Engineer
Machinist
Foreman
Sheet Metal Worker

PERSONAL SERVICES

Tailor
Waiter/Waitress
Travel Guide
Cosmetologist
Marriage Counselor
Masseur/Masseuse

CONSUMER EDUCATION & HOME ECONOMICS

Urban Planner
Forest Ranger
Geodesist
Sociologist
Soil Conservationist
Environmental Engineer

HEALTH

Medical Technician
Practical Nurse
Audiologist
Veterinarian
Physical Therapist
Dental Hygienist

COMMUNICATION & MEDIA

Television Producer
Technical Writer
Graphic Artist
Cameraperson
Stage Hand
Disc Jockey

MARKETING & DISTRIBUTION

Market Researcher
Mail/Stockroom Clerk
Salesperson
Retail Store Manager
Statistical Typist
Newspaper Circulation Manager

CONSTRUCTION

Carpenter
Surveyor
Pipefitter
Stonemason
Draftsman
Architectural Engineer

FINE ARTS & HUMANITIES

Clothing Designer
Historian
Astronomer
Cartoonist
Playright
Opra Singer

APPENDIX B

TechniToy

UNIT PLAN OVERVIEW:

- Class discussion from journal question. "What is technology?" and **Deseret News** insert *Reading, Writing and Robots*
- As a class, generate four lists to identify how technology impacts us: daily technology, career technology, war technology, toy technology
- Show the giant keyboard scene from BIG to generate interest and creativity in toy invention
- Write a description and draw your own hi-tech toy
- Draw someone else's toy form their description compare drawings and discuss the importance of accurate and detailed description
- Give TechniToy letter prompt
- Model and discuss business letter format
- Write draft of return letter to TechniToy
- Follow writing process steps to final draft
- AP English classes at Logan High School read the letters and responded to each one by using their own writing lab. They learned how to respond appropriately to letters of this type and also decided on a process for evaluating and selecting the best inventions.
- Letters returned to students and top ones in class were read and discussed
- Best letters and responses will be compiled in a book
- In future years students may write commercials for their TechniToy products

TechniToy of Utah
101 West Center
Logan, Utah 84321

January 6, 1991

Mount Logan Middle School
875 North 200 East
Logan, Utah 84321

Dear Ms. Jones:

I am Mr. Baker. My supervisor, Ms. Peterson, has been very busy lately, but I am honored to reply to your letter in her place. We here at TechniToy have been seriously considering your idea about a computerized, self-playing Megaball. Research Department has been racking its brains to come up with a way to make it possible.

To begin with, we could not come up with a method of shock absorption suitable to protect the computer from damage. A bouncing basketball sustains an incredible amount of force, as anyone who has ever had one bounced off of their head can well testify. We have almost solved that problem though, only to come upon another.

Our next obstacle has to do with orientation. The ball must know where it is so it knows where to go. We have experimented with many solutions to this problem. Optical sighting was our first attempt; the ball actually had a computerized lens which could recognize altitude and height. It was unfortunately to easy to crack, and when we tried a flexible mode, it was too soft and sustained aberrations which disoriented the central computer, causing the toy to attack and almost kill one of our staff. A completely infrared system was proposed, but too many of the objects on court have very small amounts of heat emissions.

We are now trying a three dimensional gyroscopic displacement detection network, which seems rather promising, and our only other problem is generating enough force to propel the toy to and fro.

As you can see, we do not give up easily. We hope to have a working prototype by June of this year. Thank you again for your idea, we are hoping all this effort pays off.

Sincerely,

Robert Baker
Executive Head

BEST COPY AVAILABLE

Mount Logan Middle School
875 North 200 East
Logan, Utah 84321

December 13, 1991

TechniToy of Utah
101 West Center
Logan, Utah 84321

Dear Ms. Peterson:

My name is Brandi. In our English class we are learning about high-tech toys. I'm really excited about the opportunity of inventing my own toy.

My toy is a solar activated basketball. Its name is Megaball. It has a computer that allows it to play basketball with you, one on one. It plays like it's another person. When you get the ball it takes in its legs so you can shoot or dribble it. It has legs so that it can run and jump into the basket. Anyone who knows how to play basketball can use it. The cost is somewhere between $150 to $200.

Thank you for your time and effort in reading about my invention.

Sincerely,

Bridget Miller

APPENDIX C

MT. LOGAN MIDDLE SCHOOL EIGHTH GRADE NEWSPAPER TECHNOLOGY UNIT

This two-week newspaper technology unit is part of a six-week media/communications unit designed to inform students about the purposes and influence of the media. Students will study the journalistic aspects and production of television, newspapers, radio, and periodicals. In addition, students will learn the technology required to produce a newspaper.

Curriculum Overview:

- Guest Speakers
  Newspaper reporters (how a newspaper is produced., principles for interviewing)

  Radio station personalities (technology involved in running a radio station, AM and FM frequencies)

- Filmstrips- *Front Page News Feature and Columns Communication Without Words, and Opinion and Persuasion*

- Taped celebrity interview by a broadcast journalist

- Experience with evaluating, critiquing, and identifying articles in the local newspaper

- Discussion and handouts on interpersonal skills and the interview process

- Modeling and practice in feature article writing

- Unit culminates in a paper that has gone through the writing process with the assistance of the technology in the Writing Room to become a published feature article

Earth Day Newspaper

UNIT PLAN OVERVIEW:

NEWSPAPER THEME: **HOW TECHNOLOGY AFFECTS THE ENVIRONMENT**

- Brainstorm/Discussion of how technology affects the environment either positively or negatively

- Students from Logan High School's LEAF group (Logan Environmental Action Force) tell the eighth graders about their group, their purpose, their activities and gives ideas for what students can do for the environment.

- Students find articles from newspapers, magazines and books concerning the environment and use the articles to identify problems and solutions or possible solutions for environmental issues. Share with class.

- Decide on focus and format for their Earth Day article after considering the theme and audience of the paper.

- Writing process to final draft.

- Read around groups in class to select articles for publication. Paper printed on recycled paper.

Earth Day 1992

Editorials

Vanishing Ozone

The world now knows that danger is shiningthrough the sky. The evidence is overwhelming that the earth's stratospheric ozone layer - our shield against the sun's hazardous ultraviolet rays - is being eaten away by man-made chemicals far faster than any scientist had predicted. No longer is the threat just to our future; the threat is here and now. The ozone holes could soon open over heavily populated regions in the northem hemisphere as well as in the southem. This unprecedented assault on the planet's life - support system could have horrendous long-term effects on human health, animal life, plants that support the food chain and just about every other strand that makes up the delicate web of nature. It is too late to prevent the damage. The best the world can hope fôr is to stabilize ozone loss soon after the tum of the century.

As the ozone gets thinner, people may have to cover up year-round to guard against harmful radiation from the skies. The pale look could become sexier than a deep tan.

World leaders should remember ozone when they think about other threats to the planet because if they wait, we will all be frled to a crisp before they make their decision.

Jodi Laird

Is It Worth It?

Is it worth it to buy recycled paper? Yes, definitely! When you buy new white paper you may think that you can recycle it and that will be the end of it, but it isn't. White paper is bleached white with some very toxic chemicals called organochlorines. Organochlorines are released from the factories and later from the decaying paper. It gets into our water supply and can make it toxic. When it is released from the factories or from burning it into the atmosphere, it is one of the main ingredients that contributes to toxic rain. One hundred percent post-consumed recycled paper is grey because it doesn't bleach the paper with organochlorines. So it is definitely worth it because you don't cause more trees to be destroyed and you don't release organochlorines. Do a good deed for Earth Day 1992 and switch to 100 percent recycled paper.

P.J. Larson

The Heat Monster

By Amanda McFarland

Brrrr! You're sitting at the television. As the commercial comes on you decide that you're feeling just a little bit chilly. You get up and walk over to the little dial that makes your heater work (the thermostat) and you turn it up. Oh, no! Look out! You turned it up too far and now you have let out the Heat Monster. It may not seem like a crime but, if all Americansdown their heaters in the winter just six degrees we would save 500,000 barrels of oil each day. By reducing the amount of heat we use we are actually fighting the greenhouse effect. Every year heating U.S. homes puts out over a billion tons of greenhouse gases into the air. Here's an idea. Instead of walking around with bare feet and a T-shirt, simply put on a sweatshirt and some socks, instead of letting out the Heat Monster.

Companies That Care

By Alli Cangelosi

Consumers now ask a new question when they buy a product, is this good for the environment? It seems as though there is no real way to tell anymore. So I went to the liberty of finding some eco-sensitive companies.

The Body Shop specializes in natural products, one of their long list of community programs is engaging developing countries to grow products for them. To find out more about **The Body Shop** call 1-800-541-2535.

Redkin Laboratories has developed products to help restore the coats of animals hurt in the Exxon Valdez oil spill.

Levi Strauss and Company has a new line of 550 jeans, shorts, and jackets that are as soft as suede.

This is because they're made from naturally grown fibers, no artificial colors.
Revlon has a very unique idea. No testing on animals. These are just a few of the companies who care enough to do their part for the earth.

Rap of the 3 R's

By Rebecca Nolan

Listen up, I'm telling you. The environment is in bad shape, our resources are few.

We need to help, and get along. We need to be singing the very same song.

The 3 R's are what we need. Reduce, Reuse Recycle, are what's taking the lead.

You need to reduce as much as you can. Cut down on the waste, to save our land.

To reuse is to use things over again. To use the same thing twice, is not the end.

To recycle in three words means TAKE IT BACK. If you do it enough, it'll become a knack.

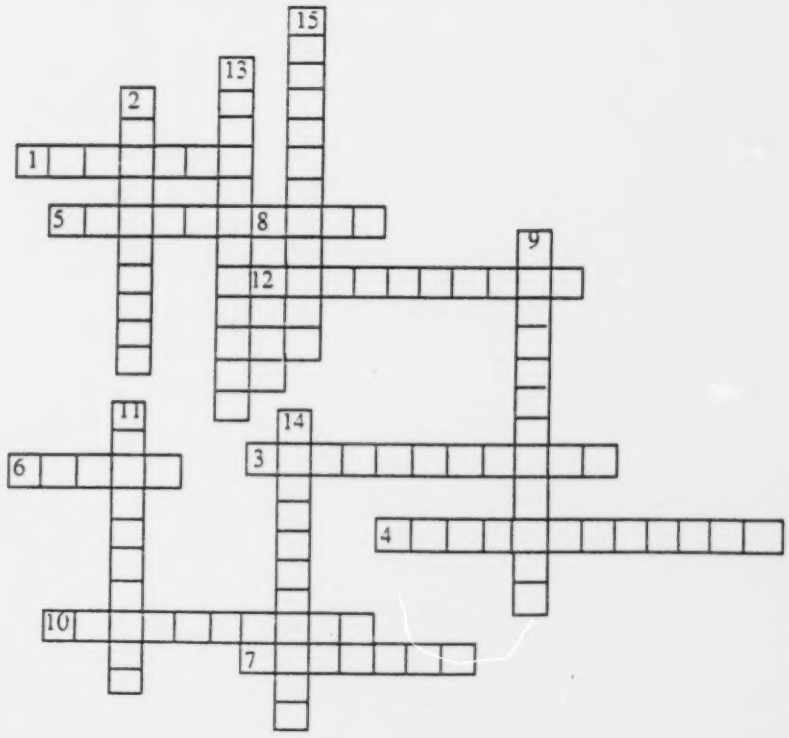
A little money is in the deal. Even though to some, it'll seem like a steal.

But when we do these, it's not a waste. Let' s save our future, and make some haste.

If not for yourself, then the future generation. We'll save the earth with our strongest aspiration.

Environmental Crossword

By: Christina Bindrup &
Anna Hansen



Across
1. An illegal hunter
3. To pollute
4. Radioactive energy
5. To burn
6. One of the 3 R's
7. One of the 3 R's
10. California Condor
12. Pampers

Down
2. Aluminum
8. One of the 3 R's
9. Used chiefly as lubricants
11. Used on farms
13. Produced by friction of water
14. A colorless plastic material
15. Preservation

The words listed below fit into the puzzle as soon as they are unscrambled correctly.

ntcieriaer
eridothecyer
elycerc
olsbpaiesd
wedrce
luacern
mantocaiten
aenegrdend
sdeitecpi
venotsorican
olasobufrnc
esoynrtlepry
leybcrlca
eurse
hocrpae

APPENDIX D

Writing with a Technological Twist

MOUNT LOGAN MIDDLE SCHOOL
LOGAN, UTAH

EIGHTH GRADE ENGLISH DEPARTMENT

JANE ADAMS
CAROL NIELSEN
KIM PLAYER

WRITING WITH A TECHNOLOGICAL TWIST

MT. LOGAN MIDDLE SCHOOL

LOGAN, UTAH

EIGHTH GRADE ENGLISH DEPARTMENT

JANE ADAMS
CAROL NIELSEN
KIM PLAYER

This year our school opened our first computer-assisted writing lab. Our challenge was to adapt our current curricula to integrate and fully explore the possibilities of the lab. Using our new technology to write about current and future technology became an obvious choice. Our efforts resulted in four projects designed with the following goals and objectives in mind.

Students will learn and apply:

1. Interviewing skills
   a. Questioning techniques
   b. Nonverbal communication
   c. Notetaking strategies
2. All styles of newspaper writing
3. Basic word processing competencies
4. The writing process
5. Methods of exploring their creativity
6. Problem solving skills
7. Persuasive writing techniques
8. Business letter/request formats
9. A sense of appropriate audience
10. Public speaking abilities
11. Collaborative learning modes
12. Research skills
13. Methods of script writing and broadcast production
14. Knowledge of current technological trends and advances

Our project has been successful beyond our original expectations because of the support of the following team members:

Dr. Larry Petersen, Assistant Superintendent
Pat Stoddart, District Technology Specialist
Don Jeppesen, Principal and Computer Genius
Suzanne Severe, Writing Room Coordinator and Colleague Extraordinare

Student_____ Hour_____

January 28, 1992

Dear Parents:

Our English classes are exploring technology through writing. We need you as a resource. Please answer the following questions as completely as possible, and discuss them with your daughter/son. Please return by January 30.

Thank you,

Eighth Grade English Teachers
Jane Adams
Carol Nielsen
Kim Player

Technology Survey

1. What technology makes your job more efficient and easier?

2. What health care advances have benefited you or a family member in the last one or two years?

Dirty Diapers
By Holly Olsen

Did you know that the Logan Regional Hospital changed from Pampers' diapers to cloth diapers? Do you care? If not, you should, and I'll tell you why. First of all, it concerns you and your environment. Most disposable diapers are non-biodegradable. In other words, they won't "disappear" into the earth, no matter how long you wait. It also means that these diapers are sitting in our landfills. We can't afford this because our landfills will be absolutely full in the next five to ten years.

The cloth diapers are good for another reason. They are much cheaper. For instance, if you bought 40 disposable diapers from a store it would cost about ten dollars. On the other hand if you bought 80 cloth diapers it would cost about eight dollars. The hospital is now saving about eight dollars. The hospital is new saving approximately 700 dollars a week, putting barely any diapers in the landfill, and doing their part for our community.

Does Your Restaurant Recycle?
by Holly Olsen

Domino's	NO	Juniper Inn	YES
Angie's	NO	Pony Express	NO
Little Ceasar's	YES	Garcia's	NO
Copper Mill	NO	La Beau's	NO
Fredico's Pizza	NO	Taco Time	YES
The Bluebird	YES	Wendy's	YES
Papa Kelsy's and Henry	NO	Hardie's	YES
Mandrin Garden	YES	Burger King	NO
Pizza Hut	YES	McDonalds	YES

Desiree Brown

Desiree: This is MLTV, and I am Desiree Brown. Utah State University engineers said that the experiments done by the CIRRIS 1A space probe during the April 28 to May 6 flight of the space shuttle Discovery were "an unqualified and exiting success."

Eight days after being launched into space aboard Discovery, CIRRIS, or the Cryogenic Infrared Radience Instrument for Shuttle, returned Monday.

The instrument experienced no orbital problems or malfunctions during its stay in space and performed much better than was hoped for, engineers from USU's space Dynamics Laboratory said at a press conference Monday at Hansen's Planetarium in Salt Lake City.

David Burt, the chief engineer for SDL, said that the information gathered by CIRRIS is the first of its kind from space.

"If we had a basketball-size object in space, we could see it 3,000 miles away," he explained. "We could look at a candle ten miles away, and tell you what it is made of, and because it's infrared, we don't even have to have sunlight. We can see it in total darkness."

The infrared measuring device was built at SDL to collect data needed for Strategic Defense Initiative research.

The goal of this research was to gather data about how rocket exhaust plumes look against different space backgrounds so future satellites can locate, track, and destroy incoming missiles.

Because of all the data collected by CIRRIS, SDL officials noted that it will take years to fully understand the information.

During the press conference, SDL scientists and engineers showed how happy and relieved they were that their engineers showed how happy and relieved they were that their $45 million project had finally gone to space after so many delays.

"It's been such a long time and we've worked so hard and have had so many different launch dates and so many cancellations that there has been frustration, "SDL Program Director Brent Bartschi admitted. "But I've never seen such a happier group of folks in my life than when that cover over CIRRIS' instruments opened and we heard Lacy (astronaut Charles "Lacy" Veach) saying, There is so much out here I don't know what to look at."

Now here's Estee Watts to tell us about construction.

Use of computers with sixth graders to encourage better writing and an awareness of technology in the past, present, and future was the purpose of these writing assignments.

The first thing was to introduce the idea of transportation to the class. In groups, the students made lists of all of the kinds of transportation they could think of. Next they put them into categories of past, present, and future. Then each student choose a type of transportation that was of interest and did a prewriting exercise.

These steps followed (a sample of a student's writing is at the end):

1. Student decided on a purpose for the writing.
2. Student decided on the audience being written for.
3. Student gathered information on the topic.
4. Student then organized ideas by making an outline.
5. Student thought about describing, informing, explaining and persuading, and made some choices.
6. Student first wrote what TECHNOLOGY IS. . . to her/him.
7. The rest of the assignments were generated out of the notes gathered.

NOTE: The one assignment which is not written here is the script for a play that the students did in small groups of three to five. They were grouped by outer space, above the earth, on the earth, on the sea, and under the sea. The scripts had to show past, present, and projected future.

Anne P. Butler
Sixth Grade Teacher
Language Arts/Soc. Studies
Mount Logan Middle School

(student work)

Writing Room
Tech. . .
Assignment 1:

name #133
English
January 2, 1992

TECHNOLOGY IS . . .
T echnology is . . .
E xciting experiences
C reative happenings
H ard work
N oisy machines
O bvious advancement
L earning a lot
O rganizing ideas
G reat fun
Y earning for more!

Assignment 2:
(outline based upon research on a type of transportation)

Motorcycles

I. History
   A. First built by Gotilieb Daimler in 1895.
   B. First motor tricycle was built by Edward Butler in 1894.
   C. Motorcycles didn't get public popularity until the end of the 19th century.

II. Uses
   A. A motor cycle is a modern day horse.
   B. Many are used for daily travel.
   C. Some are used by professionals like the police.

III. Reason to use
   A. Uses less gas so it is economical.
   B. It takes up little storage space.
   C. Requires a small space to park one.

IV. Projection about motorcycles of the future
   A. They would be solar powered.
   B. Automatic covers with heating and cooling would be possible.
   C. A cruise and radar drive control would prevent accidents.

Assignment 3:
(report on a means of transportation)

purpose: to inform and project ideas for the future
audience: middle school student

Motorcycles

Motorcycles are a modern version of a horse. They can be ridden on trails where cars and buses can't go. The first motorcycle was built by Gotilieb Daimler in 1885. However, Edward Butler built the first motor tricycle in 1884. It is of some interest that motorcycles didn't become very popular until the end of the 19th century.

The reason for the motorcycles popularity is because they use less gas, and they cost less to repair than cars. Therefore, they are a more economical means of travel. The are also smaller, and so they require a smaller place to park or to store when not in use. Like a horse, motorcycles can go faster and farther than is possible on foot. As a kind of recreation, some feel that they are a means of transportation which can't be beat.

I predict that in the future, motorcycles will have an automatic cover. This will come up over the rider at the push of a button whenever needed for a storm or for a temperature change. In the winter a heater would be available, and in the summer air conditioning could be turned on. This inflatable unit would be like an airbag and would not obstruct the vision of the driver or of a rider.

Motorcycles of the future will also have cruise control and a built in place finder, so that if traveling on a major highway a gauge could be set for a given place, the latitude and longitude punched in, and the motorcycle would then automatically lock in to the given destination. As it went down the highway if something got in front of it, a radar would identify what it was, and a computer would slow it down, steer around it, or continue it on course if danger was not imminent. I visualize the motorcycle of the future of being like a small one person car. All of this would be obtained by the use of solar energy with rechargeable lifetime batteries.

Assignment 4:
(poem on means of transportation)

Motorcycles. . .

Motorcycles are the modern version of horses
With trails in the woods being one of their courses.

First made by Gotilieb Dailmer in the year of 1985,
And they cost less to repair and are economical to drive.

In these modern days . . . gas sees to cost a "ton",
In the future perhaps motorcycles will be run by the sun.

There will be a hearer and a cover when up comes a storm,
And it will be a one person car that keeps the driver warm.

If it is a very hot summer day,
Just punch a button and cool away.

Set your course for speed and where it is you want to go
Then kick back and you'll get there either fast or slow.

Jerilyn Brunson
Cluster 4-5
Feb. 24, 1992

Creeping, Crawling Math Magician

The Creeping, Crawling Math Magician is the latest rage in computers for both kids and adults!

It's lightweight, surprisingly durable, and resembles a spider. The round platform has a plastic, scratch-resistant dome in the center which protects a small computer screen. Below the dome, in between the sets of four legs, are keys like those found on a calculator. The are lettered like computer or typewriter keys with the alphabet. On the front section of letters there is a power switch and a Fold button.

The Fold button tells your spidery friend to fold or bend its legs to create a study platform. This will help you when you're typing in a problem. An extra plus that comes with Math Magician is that it recharges itself when not in use.

Math Magician can crawl or walk wherever its tracking device is located. The tracking device is a small rectangular plastic box that clips onto belt loops, shirt pockets, and other items. It draws the Math Magician to it like a remote control tells things where to go. The Math Magician does not go very fast, it is slow so that it will be able to come to a full and complete stop at the edge of something.

The Magician has sensors that tell it to stop when there is an edge ahead, like the end of a desk, thus preventing it from falling off. Also, when it hits a surface or wall and can no longer go forward, it changes direction and seeks out a new route.

Math Magician is built and programmed to explain how to get the answers for math problems.

It will never ever just give you the answer!

It will explain in simple terms on the screen the steps towards answering the question or completing the problem. It will ask you what you think the answer is, and if you are wrong, the Math Magician will repeat this process until you type in the right answer.

For example; you type in two plus two equals? It will appear on the screen like this.
2 + 2 = ?

Press the Enter button to confirm that this is what you asked.

Next you will go through an easy step-by-step process. When you type in the right answer (4) Math Magician will congratulate and encourage you.

The Math Magician is an absolute must for all students struggling with math. Your insect tutor is programmed with the formulas from the recent Beginning Mathematics, Pre-Algebra, Algebra, Trigonometry, and Calculus text books. You can buy additional programs that specify one formula or program with more advanced math and engineering if you like.

The Creeping Crawling Math Magician is the hottest math tool on the market! It is amazingly low priced for such an advanced computer and has been named the Best Math Tutor of the Year by Computers Inc. Magazine.

Who can live without it?

APPENDIX E

MLTV TECHNOLOGY BROADCAST UNIT

UNIT PLAN OVERVIEW:

- Hand out parent questionnaire on Exploring Technology. Due two days later.
- View technology videos as combined classes in the Little Theater.
- Prewriting organizations on computers in the Writing Room.
- Put students into triads to organize their information together and share ideas.
- Show the model news clips. Give *prompt to students groups. The students will choose three topics for their focus on Exploring Technology.
- Review script writing with students. Show models of television broadcast scripts. Students work in groups on the prompt.
- Student groups complete their first draft of the script.
- Students enter their scripts on computers in the Writing Room.
- Peer revision of student scripts in the classroom.
- Students revise their scripts on computer in the Writing Room.
- Student teams present their broadcasts in the classroom.
- An editorial board will select the best broadcasts which will then be filmed and shown to a wider audience.

* Prompt: You are a technology specialist for MLTV. Your next telecast will be a team feature on exploring technology.

Format:

1. Select three hot topics that will appeal to MLTV viewers.
2. Write a three part script in broadcast form.
3. Your total broadcast should take from 3-5 minutes and will be presented in class.

APPENDIX F

PROFESSIONAL STAFF CREDIT

Credit for the success of this project is attributed to the students at Mount Logan Middle School and the following professional staff:

- Donald J. Jeppesen: Principal, Mount Logan Middle School
- Jane Adams: Teacher, Eighth Grade Dept. Head, Language Arts
- Carol Nielsen: Teacher, Eighth Grade Language Arts
- Kim Player: Teacher, Eighth Grade Language Arts
- Susan Stephens: Teacher, Sixth Grade Language Arts
- Bette Geertsen: Teacher, Sixth Grade Language Arts
- Valerie Godfrey: Teacher, Seventh Grade Language Arts
- Patricia Fullmer: Teacher, Seventh Grade Language Arts
- DeAnn Allen: Teacher, Sixth Grade Language Arts
- Kathy Brunson: Teacher, Sixth Grade Language Arts
- Anne Butler: Teacher, Seventh Grade Language Arts
- Gayle Buxton: Teacher, Sixth Grade Language Arts
- Tauna Christiansen: Teacher, Seventh Grade Language Arts
- Conley Krebs: Teacher, Seventh Grade Language Arts
- Barbara Lindquist: Teacher, Seventh Grade Language Arts
- Suzanne Severe: Writing Lab Coordinator
- Lynn Greene: Teacher, Sixth Grade Language Arts
- Vicky Olson: Teacher, Sixth Grade Language Arts
- Marty Blair: Teacher, Seventh Grade Language Arts
- Bryce Passey: Teacher, Seventh Grade Language Arts
- Karen Rae Lundahl: Teacher, Seventh Grade Language Arts
- Marion Innocenti: ESL
- Sue Toyer: Eighth Grade Resource
- Patricia Stoddart: Technology Specialist
- Mary Sucher: IBM Educational Solutions Representative
- M. Larry Petersen: Assistant Superintendent, Logan City Schools

IBM

File Edit Print Select Format Options Window Help

TechniToy

TechniToy

A Marketing Company

(hypothetical)

for High Tech Toys

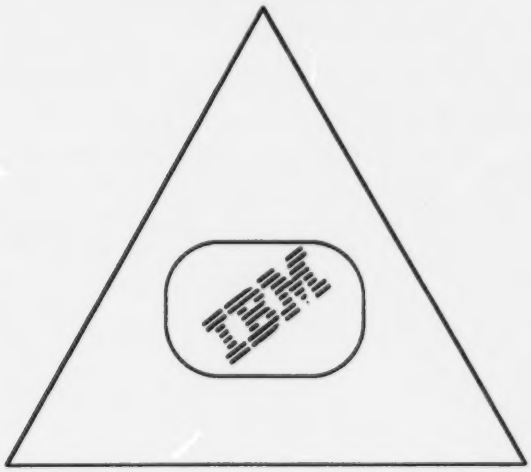
a subsidiary of

Logan City Board of Education

101 West Center
Logan, Utah 84321
(800)755-2300

Partners in Learning

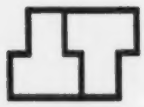
Logan City
Board of Education



Mount Logan
Middle School

Logan High School

During the 1991-92 school year, IBM supported an extensive technology-centered writing project for Mount Logan Middle School students. One of the assignments encouraged eighth graders to invent a high tech toy of the future, describe it, and submit a letter requesting it be considered for marketing.

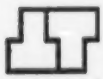


TechniToy
of Utah
Logan Division
101 West Center
Logan, Utah 84321
(801) 750-5555

This booklet contains samples of the letters written by MLMS 8th grade students and responses written by LHS students who became the executives for the hypothetical marketing company. All writing is the unedited work of students and was composed using IBM computers.

The letter, as it appears on the opposite page, was composed by the three eighth grade teachers who created the hypothetical company called TechniToy of Utah. This letter, asking the students to present an idea for a high tech toy of the future, propelled an exciting writing assignment for over 428 eighth grade students and 57 high school students.

The computer screens in the booklet show the middle school students' letters. On the opposite page are the replies written by a high school student.



TechniToy of Utah
Logan Division
101 West Center
Logan, Utah 84321
(801) 750-5555

December 4, 1992

MLMS Eighth Grade
875 North 200 East
Logan, Utah 84321

Dear Eighth Grade Inventor:
As a leader in the field of technologically-advanced toys, we are seeking innovative concepts for potential development. Since your age group composes a large portion of our target audience, we wish to invite you to participate in inventing, developing and submitting ideas for future hi-tech toys.

In a return letter, please include the following information:

- a clearly-detailed description of your toy's function(s) and unique characteristics
- An age-group designation with an explanation of why it is appealing and appropriate for that group
- Cost estimate
- A sketch of the product to be submitted separately

Thank you in advance for your creative efforts.

Sincerely,

Pat J. Peterson

Pat Jane Peterson
Chief Executive Officer
TechniToy of Utah
cn:pjp

IBM

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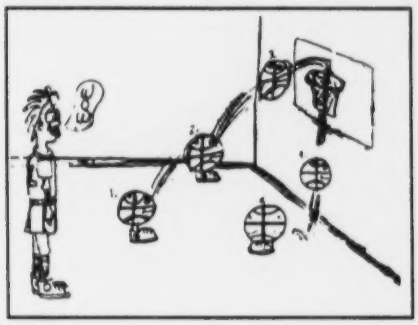
TechniToy

Mount Logan Middle School
875 North 200 East
Logan, Utah 84321

December 13, 1991

TechniToy of Utah
101 West Center
Logan, Utah 84321



Dear Ms. Peterson:

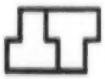
My name is Brandi. In our English class we are learning about high-tech toys. I'm really excited about the opportunity of inventing my own toy.

My toy is a solar activated basketball. Its name is Megaball. It has a computer that allows it to play basketball with you, one on one. It plays like it's another person. When you get the ball it takes in its legs so you can shoot or dribble it. It has legs so that it can run and jump into the basket. Anyone who knows how to play basketball can use it. The cost is somewhere between $150 to $200.

Thank you for your time and effort in reading about my invention.

Sincerely,

Brandi Jones



TechniToy of Utah
Logan Division
101 West Center
Logan, Utah 84321

January 6, 1991

Mount Logan Middle School
875 North 200 East
Logan, Utah 84321

Dear Ms. Jones:
I am Mr. Ublind. My supervisor, Ms. Peterson, has been very busy lately, but I am honored to reply to your letter in her place. We here at TechniToy have been seriously considering your idea about a computerized, self-playing Megaball. Research Department has been racking its brains to come up with a way to make it possible.

To begin with, we could not come up with a method of shock absorption suitable to protect the computer from damage. A bouncing basketball sustains an incredible amount of force, as anyone who has ever had one bounced off of their head can well testify. We have almost solved that problem though, only to come upon another.

Our next obstacle has to do with orientation. The ball must know where it is so it knows where to go. We have experimented with many solutions to this problem. Optical sighting was our first attempt; the ball actually had a computerized lens which could recognize altitude and height. It was unfortunately to easy to crack, and when we tried a flexible mode, it was too soft and sustained aberrations which disoriented the central computer, causing the toy to attack and almost kill one of our staff. A completely infrared system was proposed, but too many of the objects on court have very small amounts of heat emissions.

We are now trying a three dimensional gyroscopic displacement detection network, which seems rather promising, and our only other problem is generating enough force to propel the toy to and fro.As you can see, we do not give up easily. We hope to have a working prototype by June of this year. Thank you again for your idea, we are hoping all this effort pays off.

Sincerely,

Rob Ublind

Rob Ublind
Executive Head

IBM

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TechniToy

Mount Logan Middle School
875 North 200 East
Logan, Utah 84321
December 13, 1991

TechniToy of Utah
101 West Center
Logan, Utah 84321

Dear Ms. Peterson:
My toy is not a toy at all! It's a garbage can. The reason behind my idea is the environment. It is to dispose of the trash easily and more clean than any other way.

Solar power is collected by the black iron that makes up the can. The energy is stored in a square box at the top of the can along with the energy from the two other solar panels near the can. When the can gets full the energy meets with the gas which is stored in another square box adjacent to the energy box and the trash burns. The gas could be refilled when the person comes to empty the ash. This would also create jobs for people to spread the ash and fill the can with gas. Wires run through the can inside the iron can that distributes the energy evenly. The ash for the trash can be used as fertilizer.

Two of the negative aspects of this garbage can is that the gases from the fire could be harmful to the environment. The ash could also be toxic too, but if we can eliminate some of the space that is being taken up by the trash it would be worth while to produce this product.

The can would cost approximately $500 to $2000 a piece.

A name for my company that would produce these garbage cans would be Trash to Ash. But if someone has an idea for a better name I'm up for suggestions.

Thank You for reading my idea, and your time.

Sincerely,

Andy Haws
8th grade student

TechniToy of Utah
Logan Division
101 West Center
Logan, Utah 84321

January 3, 1992

Mount Logan Middle School
875 North 200 East
Logan, Utah 84321

Dear Mr. Haws:

I was pleased to receive your letter in response to my earlier request for high-tech toy suggestions. I am impressed that so many creative young people, like yourself, took the time to respond with their ideas for technically advanced products.

Your interest in the environment is commendable, however, TechniToy is not able to market products that are not toys. Trash to Ash is an intriguing concept in waste disposal, and I am sure that the Environmental Action Force of Utah would be interested in hearing your ideas. You can write to them at this address:

Environmental Action Force International
1865 A South Adams Avenue
Portland, Oregon 97858

You may also reach their headquarters at this number: 1-800-624- 4444.

Although we are unable to manufacture Trash to Ash, it is possible that we may wish to incorporate some of your ideas for solar energy storage in a future product. Your letter has been filed in our Research and Development Center for future reference. Should TechniToy decide to produce a new toy using any of the concepts you developed in your product suggestion at any time in the future, you will be contacted by our New Products Committee Chairman and invited to attend the meeting where your energy ideas will be discussed.

Thank you once again for suggestion and your interest in TechniToy.

Sincerely,

Pat J. Petersen

Pat Jane Petersen

IBM

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TechniToy

Mount Logan Middle School
875 North 200 East
Logan, Utah 84321

December 13, 1991

TechniToy of Utah
101 West Center
Logan, Utah 84321

Dear Ms. Peterson:

My idea is for a storyteller book. It will be around the size of a regular children's book. The outside cover will have a picture of the story that is being told. When you open up the book to the front page it will tell you the name of the story that is being told and starts telling you the story. Every page is full of colorful pictures that go along with the story. On the outside of the cover somewhere is a volume switch that enables you to change the volume. There will also be storyteller books that help children to read and to count.

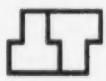
The age group is from 1 to 8. This product would be appealing to them because the storyteller books that can help the children that are trying to learn how to read or something. It can help them to learn different things. It can also help because most little children cannot read and when their parents are busy they can just open up the book and start listening to the story or whatever the book is teaching them.

The cost will range from $20 to $30.

I hope that you will like my idea.

Sincerely,

Bridget Miller



TechniToy of Utah
Logan Division
101 West Center
Logan, Utah 84321

January 7, 1992

Mount Logan Middle School
875 North 200 East
Logan, Utah 84321

Dear Miss Miller:
Thank you for your interest in the TechniToys of the future and your response to our letter. Innovative thinkers, like yourself, are the ones who make TechniToys of Utah what we are today.

We at TechniToys are very excited about the idea you have submitted. We enjoy hearing new suggestions from young people such as yourself because you are our most valued customer. Your idea of a storytelling book is well liked at TechniToys. We think that the product would be a good market selling product. At the present time we are working on our drawing boards to create a draft of your invention, after the draft is completed we will make an assimilation of your invention. At this time we will need to meet with you to get your approval on the product and to buy your patent on the product. Usually a new product would take up to a year to put on the market but TechniToys like your idea so well we are aiming for a market date before Easter.
I am looking forward to meeting with you to present our model storyteller book. I will be in touch with you in the near future. In the mean time TechniToys would like you to choose and official market name for your product.

If you have any questions or need to get in contact with me please call 755-2300. Again, thank you for your time and participation in our search for toys for the future and you interest in TechniToy of Utah.

Sincerely,
Pat J. Peterson
Patricia Jane Peterson
President, Board of Directors,
TechniToy of Utah

IBM

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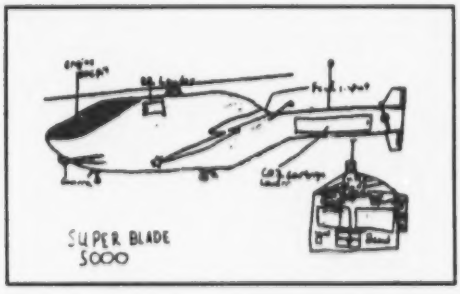
TechniToy

Mount Logan Middle School
875 North 200 East
Logan, Utah 84321



TechniToy of Utah
101 West Center
Logan, Utah 84321

Dear Ms. Peterson:

My new high-tech toy is called the super Blade 5000 Remote Control Helicopter.

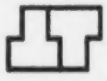
The helicopter runs on steam from water. The main special feature in the helicopter is the CO2 cartridge powered BB guns located on the side of the helicopter. You aim the guns with a little screen you look at on the controller, their is a camera in the front or nose of the helicopter that you use to aim with. You just aim and fire with a FIRE button to the side of the controller (the BB's are shot not very hard), but still lots of fun.

The age group should be around 12 and up with a license to shoot or have a gun. The approximate price is $200.00.

Thank you for your time.

Sincerely,

Kris Parkinson



TechniToy of Utah
Logan Division
101 West Center
Logan, Utah 84321

January 7, 1992

Mount Logan Middle School
875 North 200 East
Logan, Utah 84321

Dear Kris Parkinson:

Thank you for responding to our letter and designing a high-tech toy. We appreciate your time and efforts in designing the Super Blade 5000 Remote Control Helicopter.

The Super Blade 5000 is an exciting new idea. This is the type of product that we have been looking for at TechniToy. We have put our technicians to work developing the Super Blade 5000. We liked the idea of the helicopter running on steam because it will make it more affordable. Our favorite feature of the Super Blade 5000 is the camera screen that allows the operator to aim and fire. We feel it is to much of a liability to use BB's. For this reason we have altered your idea slightly. Instead of BB's we will use plastic missiles. We will also have an option that will allow the controller to drop water balloons.

At TechniToy we are looking for innovative new ideas. At our company we need ideas that will make us the industry leader, not a follower. We believe the Super Blade 5000 is the type of product that will put TechniToy on top. For your efforts we have enclosed a $10,000 cheque. We love your idea and know it has the potential to become a top of the line product. Thank you again for responding to our request.

Sincerely,

Pat J. Peterson

Ms. Peterson
President

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TechniToy

Mount Logan Middle School
875 North 200 East
Logan, Utah 84321
December 13, 1991

TechniToy of Utah
101 West Center
Logan, Utah 84321

Dear Ms. Peterson:

Would you like to see the world? Talk to real people in any country? Maybe Hologearth can help.

Hand held with a black, shiny, soft, plastic base and five large colorful buttons the Hologearth, or hologram-earth is the first of its kind.

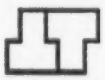
Hologearth uses the latest technology in holograms to produce a life-like hologram of the earth produced by the base. It has everything clearly labeled. Just touch the yellow button to select the country or body of water. Punch the green button to see a full list of facts about that country. This also allows people to speak to anyone around the world, live, by pressing the blue button. The user can make new friends, do business, learn and be creative all at the same time. The purple button gives you interesting facts about our earth. The last button is the red on/off switch. This unit has its own computer run by its own generator which is run by twisting a handle on the bottom. I recommend it for ages eight and up.

Last of all this terrific toy, gift, present, surprise, business help and teaching tool is priced only about $25.00 dollars.

Thank you for listening to Hologearth - the toy of the future.

Sincerely,

Charlotte Hilton
eighth grade inventor



TechniToy of Utah
Logan Division
101 West Center
Logan, Utah 84321

January 6, 1992

Mount Logan Middle School
875 North 200 East
Logan, Utah 84321

Dear Ms. Hilton:

I was pleased to receive your letter concerning Hologearth, the innovative computer. The idea of having knowledge about other countries right at the consumers finger tips would be able to act as a tremendous learning tool. TechniToy appreciates such enthusiasm from the eighth grade inventors of our community.

The appearance of Hologearth, as described in your letter sounds appealing. The shiny black base and colorful buttons would make the product appealing and easy to market. The TechniToy's board has considered the idea of manufacturing a complex item such as Hologearth, however, according to our lab technologists would be too dynamic to produce.

TechniToy does have plans of growth and expansion, and the company will keep Hologearth on file. The board has referred you to Computers of America, Co. Their engineers are adequately trained to market such a terrific learning toy. TechniToy would like to thank you again for your letter and hope to hear from you again soon.

Sincerely yours,

Pat L. Petersen

Ms. Pat Jane Petersen
TechniToy of Utah

IBM

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Mount Logan Middle School
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Logan, Utah 84321

December 13, 1991

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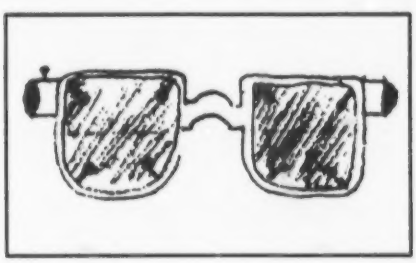


Dear Ms. Peterson:

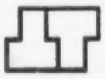
Thank you for your invitation to write to you about my High Tech toy. I believe that everyone will enjoy my Just Glasses.

My toy looks like everyday glasses that anyone might wear. Behind the ear in the frame there is a small speaker. The back of the lens has an optic field. On one side of the frame there is a small indent where you insert a microchip, in order to the thing you would like to do. There are many options that you could choose to do you could play computer games, write or review reports, or watch a movie. My toy is perfect for the age group of 9-adult. Just Glasses would probably cost approx. 300 dollars not including the price of the required microchips.

Thank you for any consideration you may give my ideas.

Sincerely,

Jennifer Brunson



TechniToy of Utah
Logan Division
101 West Center
Logan, Utah 84321

January 3, 1992

Mount Logan Middle School
875 North 200 East
Logan, Utah 84321

Dear Jennifer Brunson:

I appreciate your letter concerning High-Tech toys for the future. I believe your idea may be of some use to our company, and I would like to explore it deeper. The market for a toy of this kind is exploding, and I think that with a little ingenuity on the part of our computer scientists. this toy could be tomorrow's Nintendo.

Unlike your estimation, I believe Just Glasses would cost approximately $1,000 to but and maintain. So we, as the leading toy company in Utah, need to invent something that will appeal to the older generations that Just Glasses would appeal to both children and Adults, and that is exactly what we nee, as it is the adults who have the money to spend.

Thank you for your contribution to TechniToy. I will be in touch with you.

Sincerely,

Pat J. Peterson

Ms. Peterson
Vice President

This project was made possible by a grant from IBM to Logan City School District encouraging students to write and learn about technology.